

PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books
Search PubMed	▼ for						Go	Clear
Limits Preview/Index History Clipboard Details								

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

☐ 1: Eur J Immunol 1998 Dec;28(12):4409-17

Related Articles, NEW Links

Entrez PubMed



2F1 antigen, the mouse homolog of the rat "mast cell function-associated antigen", is a lectin-like type II transmembrane receptor expressed by natural killer cells.

Hanke T, Corral L, Vance RE, Raulet DH.

PubMed
Services

Department of Molecular and Cell Biology, University of California, Berkeley
94720-3200, USA.

Related
Resources

Inhibitory lectin-like receptors expressed on the surface of hematopoietic cells are critically involved in regulation of their effector functions. Here we report that a novel mAb specific for mouse NK cells, 2F1, recognizes the mouse homolog of the mast cell function-associated antigen (MAFA), an inhibitory lectin-like transmembrane receptor expressed on rat mast cells. The 2F1 antigen (2F1-Ag) and rat MAFA are structurally highly conserved and contain a cytoplasmic motif similar to the immunoreceptor tyrosine-based inhibitory motif that is presumably utilized for inhibitory signaling. We also identified a human homolog that is closely related to the rodent MAFA/2F1-Ag proteins. Like rat MAFA, 2F1-Ag is probably encoded by a single gene, which exhibits relatively little polymorphism. Strikingly, while rat MAFA is considered a mast cell antigen, we have been unable to detect cell surface expression of 2F1-Ag by mouse mast cell lines, bone marrow-derived mast cells, or peritoneal mast cells. Furthermore, mouse bone marrow-derived mast cells were devoid of 2F1-Ag mRNA. Instead, we find that approximately 40% of mouse NK cells express 2F1-Ag. Thus, MAFA/2F1-Ag may modulate immunological responses on at least two different cell types bridging the specific and innate immune system.

PMID: 9862378 [PubMed - indexed for MEDLINE]

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

Write to the Help Desk
NCBI | NLM | NIH
Department of Health & Human Services
Freedom of Information Act | Disclaimer

Freedom of Information Act | Disclaimer

i686-pc-linux-gnu Aug 30 2002 15:17:13



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books
Search PubMed	▼ for						Go	Clear
Limits Preview/Index History Clipboard Details								

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

☐ 1: Eur J Immunol 1998 Dec;28(12):4409-17

Related Articles, NEW Links

Entrez PubMed



2F1 antigen, the mouse homolog of the rat "mast cell function-associated antigen", is a lectin-like type II transmembrane receptor expressed by natural killer cells.

Hanke T, Corral L, Vance RE, Raulet DH.

PubMed
Services

Department of Molecular and Cell Biology, University of California, Berkeley
94720-3200, USA.

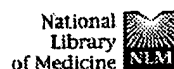
Related
Resources

Inhibitory lectin-like receptors expressed on the surface of hematopoietic cells are critically involved in regulation of their effector functions. Here we report that a novel mAb specific for mouse NK cells, 2F1, recognizes the mouse homolog of the mast cell function-associated antigen (MAFA), an inhibitory lectin-like transmembrane receptor expressed on rat mast cells. The 2F1 antigen (2F1-Ag) and rat MAFA are structurally highly conserved and contain a cytoplasmic motif similar to the immunoreceptor tyrosine-based inhibitory motif that is presumably utilized for inhibitory signaling. We also identified a human homolog that is closely related to the rodent MAFA/2F1-Ag proteins. Like rat MAFA, 2F1-Ag is probably encoded by a single gene, which exhibits relatively little polymorphism. Strikingly, while rat MAFA is considered a mast cell antigen, we have been unable to detect cell surface expression of 2F1-Ag by mouse mast cell lines, bone marrow-derived mast cells, or peritoneal mast cells. Furthermore, mouse bone marrow-derived mast cells were devoid of 2F1-Ag mRNA. Instead, we find that approximately 40% of mouse NK cells express 2F1-Ag. Thus, MAFA/2F1-Ag may modulate immunological responses on at least two different cell types bridging the specific and innate immune system.

PMID: 9862378 [PubMed - indexed for MEDLINE]

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

Write to the Help Desk
NCBI | NLM | NIH
Department of Health & Human Services
Freedom of Information Act | Disclaimer



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books	
Search	PubMed	▼	for					Go	Clear
Limits Preview/Index History Clipboard Details									

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

☐ 1: Eur J Immunol 1994 Dec;24(12):3093-9

[Related Articles](#), [NEW](#) [Links](#)

Entrez PubMed

T lymphocyte-mediated antiviral immune responses in mice are diminished by treatment with monoclonal antibody directed against the interleukin-2 receptor.

Utermohlen O, Tarnok A, Bonig L, Lehmann-Grube F.

PubMed
Services

Heinrich-Pette-Institut für Experimentelle Virologie und Immunologie an der Universität Hamburg, Germany.

Related
Resources

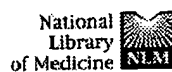
Blocking the interleukin-2 receptor's alpha-chain in lymphocytic choriomeningitis virus-infected mice by treatment with monoclonal antibodies diminished the increase of numbers of CD8+ T lymphocytes in spleens and prevented CD8+ T lymphocyte-mediated virus clearance from organs as well as generation of virus-specific cytotoxic T lymphocytes. Also, the CD8+ T cell-mediated early phase of the delayed-type hypersensitivity footpad swelling reaction was decreased. The same treatment had no effect on the number of CD4+ spleen T lymphocytes, which, however, did not enlarge during infection, but these cells' heightened DNA synthesis and cytokine production were reduced by antibody treatment; yet the generation of antiviral antibodies remained unaffected, and the CD4+ T lymphocyte-mediated second part of the footpad reaction was somewhat augmented. We conclude that blocking of the interleukin-2 receptor by antibody in lymphocytic choriomeningitis virus-infected mice diminishes both CD8+ and CD4+ T cell-mediated antiviral immune responses, the former more than the latter.

PMID: 7805738 [PubMed - indexed for MEDLINE]

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

[Write to the Help Desk](#)
[NCBI](#) | [NLM](#) | [NIH](#)
[Department of Health & Human Services](#)
[Freedom of Information Act](#) | [Disclaimer](#)

i686-pc-linux-gnu Aug 30 2002 15:17:13



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books
Search PubMed	▼ for						Go	Clear
Limits Preview/Index History Clipboard Details								

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

☐ 1: Eur J Immunol 1994 Dec;24(12):3093-9

Related Articles, NEW Links

Entrez PubMed

T lymphocyte-mediated antiviral immune responses in mice are diminished by treatment with monoclonal antibody directed against the interleukin-2 receptor.

Utermohlen O, Tarnok A, Bonig L, Lehmann-Grube F.

PubMed
Services

Heinrich-Pette-Institut für Experimentelle Virologie und Immunologie an der Universität Hamburg, Germany.

Related
Resources

Blocking the interleukin-2 receptor's alpha-chain in lymphocytic choriomeningitis virus-infected mice by treatment with monoclonal antibodies diminished the increase of numbers of CD8+ T lymphocytes in spleens and prevented CD8+ T lymphocyte-mediated virus clearance from organs as well as generation of virus-specific cytotoxic T lymphocytes. Also, the CD8+ T cell-mediated early phase of the delayed-type hypersensitivity footpad swelling reaction was decreased. The same treatment had no effect on the number of CD4+ spleen T lymphocytes, which, however, did not enlarge during infection, but these cells' heightened DNA synthesis and cytokine production were reduced by antibody treatment; yet the generation of antiviral antibodies remained unaffected, and the CD4+ T lymphocyte-mediated second part of the footpad reaction was somewhat augmented. We conclude that blocking of the interleukin-2 receptor by antibody in lymphocytic choriomeningitis virus-infected mice diminishes both CD8+ and CD4+ T cell-mediated antiviral immune responses, the former more than the latter.

PMID: 7805738 [PubMed - indexed for MEDLINE]

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

Write to the Help Desk
NCBI | NLM | NIH
Department of Health & Human Services
Freedom of Information Act | Disclaimer

i686-pc-linux-gnu Aug 30 2002 15:17:13